

The Weather Whisper

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Fire Weather Outreach

Andrew Ansorge, Lead Meteorologist

In January, our office attended the annual Winterfest meeting, which is held by the Iowa Association of County Conservation Board Employees. While Winterfest covers a wide range of topics, prescribed fire burns are conducted by many attendees from federal, state, and local land management agencies in the spring and fall to control invasive species, improve wildlife habitat, and manage native plant diversity. So, this meeting provides an excellent opportunity for the National Weather Service to interface directly with these partners. At our booth, we shared contact information and fire weather forecasting and services available to these government land management agencies. With the NWS' mission being the protection of life and property, our goal with our fire weather services is that fire crews are kept safe and adjacent properties next to a prescribed burn are left untouched.



Ice Jam Outlook This Spring

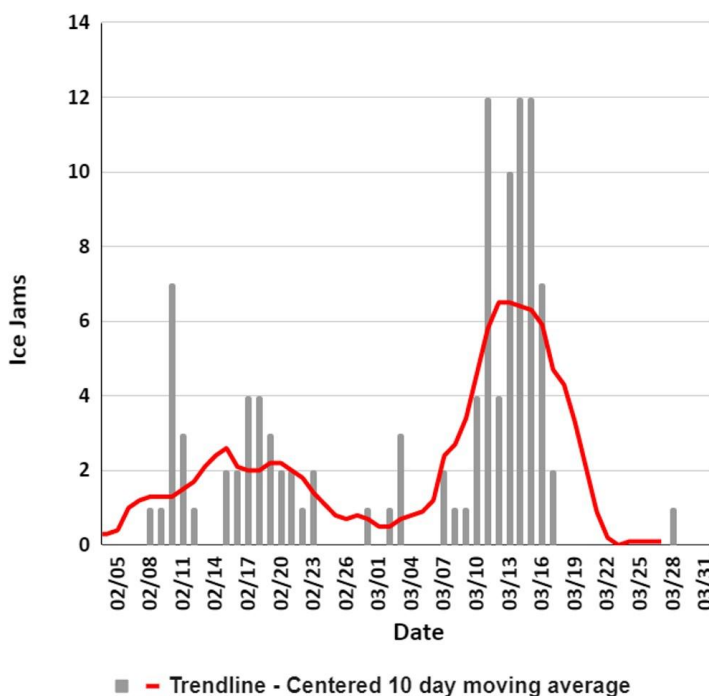
Andrew Ansorge, Lead Meteorologist

While the final spring thaw has yet to arrive, there were relatively mild days in February that allowed river ice to break up. Ice was moving through the Raccoon River in Des Moines (below) with an ice jam on the Cedar River near Cedar Falls that flooded low lying parts of Black Hawk Park.

As we continue through March, which is the climatological peak of ice jams across central Iowa (chart below), **send in your reports of ice chunks jamming up or flooding a river to 515-240-5515 or email to dmx.spotterreport@noaa.gov**. Make sure to include the location and if possible a picture, if safe to do so.



Ice on the Raccoon River in Des Moines, February 16, 2023.



Central Iowa ice jams 1990-2022 showing a peak in the middle of March.

While March is our peak for ice jams, the ice jam risk this year is low. This is a result of below normal streamflow as we entered this winter season, which means that river levels are low. So, not only is river ice thickness limited, a significant amount of rainfall would be needed to elevate river levels to raise higher concerns for ice jam flooding this spring.

Now, meteorologists have several ways to monitor rivers for ice jams. River gages from the U.S. Geological Survey, U.S. Army Corps of Engineers, and the Iowa Flood Center have sensors to measure the river's stage, or height, and/or the streamflow. Further, meteorologist can use satellite imagery from Landsat8/9 and NOAA-20/21 among others to view where there is ice on rivers. We also depend on you and your reports and pictures of river ice and ice jams so send them to the phone number or email address above.

Day in the Life: The Day Shift

Brooke Hagenhoff, Meteorologist

The first spotlight in our series: the day shift. This shift consists of two meteorologists and duties are typically split so that one focuses on the details of the forecast for the next 7 days (called the “forecast shift”) and the other focuses on data quality control and messaging the forecast (called the “messaging shift”). Shifts are staggered to allow for overlap with surrounding shifts with hours of either 7a-3p or 8a-4p.

Morning

Receive a briefing from the outgoing overnight shift. This briefing focuses on the primary forecast concerns in the near term and what forecast challenges exist in the longer term to keep an eye on. Both forecasters will spend time going through the latest model data and current observations. Volunteer observers will send in their previous day temperatures and precipitation data in the morning, which is then QC'd and disseminated in text products. They will also answer the phone, conduct interviews, and update social media. On quieter weather days, historical events, safety information, or other interesting tidbits are shared. During more active weather this person will engage with emergency managers and public safety partners, sometimes in the form of webinars, emailed briefings, or phone calls. If requested, this person can also provide support for large outdoor events such as county fairs, festivals, etc.

Afternoon

By afternoon the forecaster will need to issue the aviation forecasts for the 5 primary airports in our area. These have required updates 4x per day, with edits as an option anytime conditions change unexpectedly. At the same time, the forecaster is making adjustments to the near-term and long-term forecasts. By the end of the day the forecast is published and sent to the web for use in a number of public products. A forecast discussion is also sent, which provides scientific details about the forecast and can highlight areas of uncertainty that exist. In coordination with the forecaster, the messaging shift will create graphics to convey the forecast to users. These are available on our website and social media. In the event of more active weather, the messaging shift may send out an email briefing.

What if there is active weather going on during the shift?

In this case, extra staff would need to help out. During convective scenarios, one or two meteorologists might issue warnings with additional meteorologists around to answer phone calls, talk to emergency managers, and receive storm reports. We'll cover active weather in a future article.

Spring Fire Weather Season

Andrew Ansorge, Lead Meteorologist

While parts of the state remain covered with snow, in the coming weeks the snow will give way to warmer weather and spring. For land management agencies across Iowa, this will mean the start of the spring prescribed fire season. The National Weather Service provides weather forecasts that are tailored to these fire practitioners. While the season is weather dependent, the official start date is around March 1.

For the general public, National Weather Service offices will issue a Fire Weather Watch or a Red Flag Warning when grasses are dry and weather conditions are favorable for fast fire spread, which could pose a risk to life and property. If a Fire Weather Watch is issued, it means that conditions could be favorable in the next day or two. If a Red Flag Warning is issued, it means conditions are already or soon will be favorable for dangerous and fast fire spread. Simply put, a Red Flag Warning means do not burn outdoors.

Red Flag Warning

The NWS issues a Red Flag Warning, in conjunction with land management agencies, to alert land managers to an ongoing or imminent **critical fire weather** pattern.

Critical fire conditions are ongoing or expected within the **next 24 hours**. Be extremely careful with open flames.

Take action.

Fire Weather Watch

A Fire Weather Watch alerts land managers that upcoming weather conditions could result in extensive wildland fire occurrence or extreme fire behavior.

These conditions are expected to develop in the **next 12 to 48 hours**, but **not more than 72 hours**.

Be prepared.

weather.gov/fire 

2023 Spotter Training Schedule

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Who Can Attend:	Month	Day of Week	Date	County Location - City Location	Start Time	Registration Needed?
Anyone! Open to the public.	March	Monday	27th	Marion County - Location TBD	TBD	
Cost: FREE!		Tuesday	28th	Marshall County - Marshalltown	6:00 PM	By 5:30 PM
Length of Class: 60 to 75 minutes		Thursday	30th	Polk County - Des Moines	6:30 PM	Required in Advance
What You Will Learn: Spotter training classes contain information about identifying & reporting severe weather, spotter safety, severe weather climatology in Iowa, thunderstorm structure & threats, and more!		Monday	3rd	Taylor County - New Market	6:30 PM	
		Tuesday	4th	Story County - Nevada	6:00 PM	
	April	Wednesday	5th	Decatur County - Leon	6:00 PM	
		Thursday	6th	Cerro Gordo County - Mason City	6:30 PM	
		Monday	10th	Black Hawk County - Cedar Falls	5:00 PM	
		Tuesday	11th	Audubon County - Audubon	6:00 PM	
		Wednesday	12th	Madison County - Winterset	6:00 PM	
		Thursday	13th	Clarke County - Osceola	6:00 PM	
		Friday	14th	Hamilton County - Jewell	7:00 PM	
		Monday	17th	Emmet County - Estherville	6:00 PM	
		Tuesday	18th	Humboldt County - Humboldt	6:00 PM	
		Wednesday	19th	Virtual Spotter Training Session #1	6:30 PM	Required in Advance
		Thursday	20th	Cass County - Atlantic	7:00 PM	
		Friday	21st	Jasper County - Newton	6:30 PM	
		Saturday	22nd	Kossuth County - Algona	7:00 PM	
		Sunday	23rd	Adair/Guthrie Co. - Menlo	7:00 PM	

Additional Details & Registration Information:
[weather.gov/dmx/stormspotting](https://www.weather.gov/dmx/stormspotting)

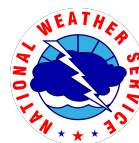


NATIONAL WEATHER SERVICE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION | Des Moines, IA

Interested in becoming a storm spotter or to refresh your knowledge as a current storm spotter? Attend one of our sessions listed here (click on image to view larger). Details and registration information can be found on the [spotter training website](https://www.weather.gov/dmx/stormspotting). A few more classes may still be added, including an Advanced Spotter Training, so check the website for updates.

On the Cover:

A band of heavier snow moved through north central into northern Iowa on the morning of 2/22/23 dropping visibilities as seen in the image, courtesy of an Iowa DOT webcam near Clear Lake. This same system left much of central Iowa along the Highway 20 and 30 corridors covered in ice.



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